REMARKS

Applicant thanks the Examiner for his careful review of the present application. Applicant has read and considered the Office Action dated January 19, 2005 and the references cited. Applicant has amended the abstract and claims 1 and 5. Applicant notes that the claim amendments are intended to further clarify the invention, and asserts that the present amendment places the application in condition for immediate allowance. Claims 1-5 are pending, and no new matter is asserted

Objection to the Abstract

The Office Action objected to the abstract, indicating that under M.P.E.P. § 608.01(b) legal phraseology and implied terms should be omitted. Applicant has provided herein a substitute abstract, and asserts that the abstract as amended removes all language objected to in the Office Action. Applicant therefore requests reconsideration and withdrawal of this objection.

Claim Rejections Under 35 U.S.C. § 103(a)

The Office Action rejected claims 1-5 under 35 U.S.C. 103(a) as being unpatentable over Jung (U.S. Patent No. 6,061,401) in view of Kobayashi et al. (U.S. Patent Publ. No. 2003/0131019). Applicant respectfully traverses the rejection.

Independent claims 1 and 5 as presented require, among other elements, searching a restricted group of image block average values stored in the memory locations of the directory memory of an associative memory device for an image block average value best matching the entered key word, wherein the restricted group of image block average values comprises the image block average values which differ from the entered key word by no more than a predetermined mean error, and wherein a partial distance elimination method is used for fastening the search for the best match; and outputting from the corresponding memory location of the output memory of the associative memory device, the location of the image block having the best matching image block average value found. This added limitation is not new matter, and can be seen on page 5 lines 14-20, and from page 5 line 27 to page 6 line 20 of the present application.

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Applicant asserts that the combination of Jung and Kobayashi et al. at least fails to disclose or suggest use of an associative memory device as is required by the independent claims, and particularly fails to teach use of an associative memory to output a location of an image block having the best matching image block average value, as claimed.

Applicant asserts that associative memories are substantially different from traditional memories, in that associative memories are a special type of computer memory device that can be used in very high speed searching applications. Unlike standard computer memory (i.e. Random Access Memory, or RAM) in which a user supplies a memory address and the RAM returns the data word stored at that address, an associative memory is designed such that a user supplies the data word and the associative memory device searches the entire contents to see if the data word is stored within it. If the data word is found, the associative memory returns a list of one or more storage addresses where the word was found.

The Office Action characterizes the error signal memory 210 of FIG. 2 of Jung as an associative memory. Applicant disagrees with the characterization that the error signal memory is an associative memory. Jung discloses a video signal encoder/decoder having an error signal memory that receives position data from a position deciding block and responds with a set of error values for each of the processing blocks. See column 4, lines 45-59 of Jung. Hence, the error signal memory outputs values, and does not output storage addresses. This indicates that the error signal memory is a conventional memory, and is not an associative memory. So, Jung does not disclose use of an associative memory. Furthermore, use of an associative memory is different in operating principle from such standard memory devices, and Jung fails to teach or suggest use of non-traditional memory devices.

Kobayashi et al. also fails to disclose or suggest use of an associative memory as claimed. Kobayashi et al. discloses an image processing apparatus for dividing an image into a plurality of areas and allocating attribute information such as key words describing characteristics of each area to the area. The attribute information can be stored in a table, such as shown in FIG. 10 of Kobayashi et al. Applicant notes that the image processing apparatus utilizes conventional ROM and RAM memory circuits, seen throughout the specification and particularly at FIG. 1, showing only RAM, ROM, VRAM and hard disk memories located on the system of Kobayashi et al.

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Kobayashi therefore fails to disclose an associative memory as well. Furthermore, use of an associative memory is different in operating principle from such standard memory devices, and Kobayashi et al. fails to teach or suggest use of non-traditional memory devices as well

Because neither Jung nor Kobayashi et al. at least teaches or suggests use of an associative memory to output a location of a best matching image block, Applicant asserts that claims 1 and 5 are not rendered obvious. Claims 2-4 are dependent upon claim 1, and are therefore nonobvious as well. For at least this reason, Applicant respectfully requests reconsideration and withdrawal of the present rejection.
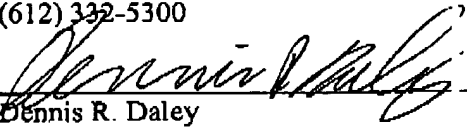
Conclusion

Claims 1-5 remain pending in this application. In view of the above amendments and remarks, Applicant respectfully requests entry of this amendment and a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

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